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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,393	03/30/2001	Clyde E. Bishop	15488/122048	9784

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EXAMINER

CHOI, LING SIU

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/823,393

Applicant(s)

BISHOP ET AL.

Examiner

Ling-Siu Choi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-38 is/are pending in the application.
- 4a) Of the above claim(s) 23-26 and 32-38 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 28-31 is/are allowed.
- 6) ☒ Claim(s) 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 08/417,735.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

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DETAILED ACTION

1. This Office Action is in response to the Amendment filed October 18, 2004. Claims 1-22 were canceled and claims 23-38 are now pending, wherein claims 27-31 have been elected for consideration. Rejection of 27-31 under 35 USC 102(a) by Siedle et al. (US 5,296,433) is removed. Claims 28-31 are now allowable and claim 27 is rejected under 35 USC 103(a) over Siedle et al. (US 5,296,433) in view of Welborn, Jr. (US 5,441,920). Since it is a new ground rejection, the Office Action is made as second non-final rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Siedle et al. (US 5,296,433) in view of Welborn, Jr. (US 5,441,920).

Siedle et al. disclose a catalyst for olefin polymerization, comprising a hydrocarbylcyclopentadienyl metal complex in the general formula of $(Cp)pM(R^4)_{4-p}$, wherein M is titanium, zirconium, or hafnium; p is 1 or 2; and Cp can be

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bis(octahydrofluorenyl) (col.6, line 26-68; col. 7, lines 1-10).

The difference between the present claims and the disclosure of Siedle et al. is the requirement of a ligand having a bridge linking both octahydrofluorenyl groups.

Welborn, Jr. disclose a **silicon-bridged** metallocene catalyst comprising a **chiral transition metal compound** and an aluminoxane, which are used to polymerize α -olefin to high isotacticity with a minimum of inversions (col. 7, lines 3-7; col. 10, lines 66-68; col. 11, lines 1-15; claim 12). Furthermore, Siedle et al. also recognize that “**chiral metallocenes** are also suitable and useful when a stereoregular polymer is desired” (col. 7, lines 8-10). In light of such benefit, it would have been obvious to one of ordinary skill in the art at the time the invention was made to bridging both octahydrofluorenyl groups in the disclosure of Siedle et al. and thereby obtain the present invention.

Allowable Subject Matter

4. This application contains allowable subject matter (claims 28-31) because the prior art of record [Siedle et al. (US 5,296,433) and Welborn, Jr.], either alone or in combination, fails to teach or suggest the use of the specific metallocene and an Al-containing cocatalyst. If the non-elected claim is canceled and the hereinabove rejections under 35 USC 112 are obviated, the application could be passed to issue.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the

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examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reach on 571-27-1114.

L. S. Choi

**LING-SUI CHOI
PRIMARY EXAMINER**

January 21, 2005